

Water Voles

When do I need to consider water voles?

Water voles and their resting places are protected under national legislation. If you are carrying out any work that could harm them or their habitats you should obtain advice from a suitably experienced ecologist.

Recent evidence indicates that water voles have undergone a long term decline in Britain, disappearing from 94% of their former sites. Habitat loss and predation by the introduced American mink have had severe impacts on water vole populations, causing population fragmentation and local extinctions.



Water voles were once widespread across Devon with recorded populations on the Exe, Tavy, Dart and Grand Western Canal. This changed rapidly once mink had established themselves on many rivers in the 1960s. Other than occasional records up until 2002, they were largely extinct by the second National Water Vole survey (1996-1998). The River Axe Water Vole Recovery Project was set up in June 2006 and this was followed by the Devon Water Vole Recovery Project which ran from 2008 – 2011. The aims were to 'encourage natural re-colonisation of water voles from existing populations in Dorset and Somerset and to undertake a comprehensive mink control programme on the Axe, Otter, Lim and Sid.' Reintroductions were carried out in 2009 and 2010 on the Axe, Coly tributaries and the Tale. The Tale Valley Trust had previously reintroduced water voles on the Tale in 2004 and 2006. In late 2012 there were water vole populations on the Tale and Axe and more recently they were rediscovered on the western side of the Exe estuary. It is thought that decreasing mink population may now lead to many other potential suitable locations/habitats becoming available to reintroduction initiatives.

Activities that can affect water voles include:

- Unsympathetic riverbank, ditch and pond management – vegetation management, reprofiling,
- Heavy grazing pressure from domestic livestock
- Dredging and bank reprofiling of watercourses and colonised ditches
- Flood defence engineering works
- Pollution to water courses
- Flooding

If you are applying for planning permission from DCC please follow the Wildlife Planning Guidance for Applicants. If applying for planning permission from another LPA please follow their guidance. If you are taking forward a DCC project that doesn't need planning permission please follow the internal Environmental Review guidance.

Basic ecology

The water vole is the largest British vole. Their body length is around 20cm plus a tail length of 13cm. They have a blunt nose; dark chestnut-brown to black fur; short rounded ears and a hair-covered tail. Water voles are often mistaken for brown rats, especially when swimming, but brown rats have a pointed muzzle, larger eyes, more obvious ears and an almost completely hairless tail.

Water voles can occur along rivers, streams, canals, ditches and ponds. They have a preference for, but are not limited to, slow flowing or still waters and little or no significant fluctuations in water levels. Despite being strong swimmers, water voles bolt to their burrows for safety when disturbed or threatened by predators. They like to create their burrows in steep earth riverbanks and dig out their nesting chambers above the water level. Water voles prefer banks with tall herbaceous vegetation (providing food and cover from predators) with plentiful marginal vegetation at the water's edge. They are predominately herbivores with

grasses, sedges and reeds forming the majority of their diet. Their activity is largely confined to a few metres of the water's edge, but the length of territory may range from 30m to 300m.

Water voles usually have three or four litters a year and young are born between April and September.

Surveys - quick overview

In Devon, surveys should be undertaken where distribution and historical records of water vole suggest they may be present or where the habitat is suitable and a suitably qualified ecologist deems it appropriate. The absence of a record doesn't mean there are no water voles in the area but could be a result of there being no survey data available for that location.

As water voles are rarely seen, surveys should be based on the **presence of characteristic signs**. Site-specific searches, by a suitably experienced ecologist, should involve a close examination of waterways up to two metres from the water's edge following methodology stated within the [Water Vole Conservation Handbook](#). Although they do not hibernate, water voles are not very active above ground during the winter, so **surveys should be carried out between March and October** to ensure your survey does not show a false negative result. Surveys should not be carried out just after periods of heavy rain as most or all field signs are likely to have been washed away.

The following water vole signs should be searched for:

- **Faeces** - these are 8 - 12mm long and 4 - 5 mm wide, cylindrical with blunt ends. The colour is variable, though often green, and they are generally odourless or have a faint musky smell.
- **Latrines** - the majority of droppings are deposited at latrine sites, used to mark range boundaries or favoured spots close to burrows. Latrines are typically maintained between February and November and often consist of a flattened mass of old droppings topped with fresh ones.
- **Feeding stations** - water voles often bring pieces of cut vegetation to favoured feeding stations close to the water's edge and leave remains in neat piles.
- **Burrows** - water vole burrows are typically wider than they are high, with a diameter of 4 - 8cm. Around these holes, well-grazed 'lawns' can often be found, where the water voles have chewed the vegetation short.
- **Footprints** - do not rely on these alone as they can be confused with other rodents. **Runs or pathways** - always look for these in association with a range of other field signs.

Water vole field signs



Droppings



Burrow (one pence coin to show scale)



Footprint

Legislation and licensing - headlines

Species legislation

The water vole is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is a priority conservation species. **It is an offence to:**

- intentionally capture, kill or injure water voles
- damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care)
- disturb them in a place of shelter or protection (on purpose or by not taking enough care)
- possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity)

Licences

A licence is required in order to capture water voles (e.g. for translocation) or damage their habitat. In most cases such licences are awarded for conservation purposes such as circumstances where despite all efforts to minimise the impacts, significant risk of killing or injuring water voles cannot be reasonably avoided.

Wherever possible avoidance and mitigation measures (see below) should be undertaken to reduce impacts on water voles and avoid the need for a licence.

Priority species

Water voles are a UK and Devon Biodiversity Action Plan priority species. Public bodies (including LPAs) must have regard to their conservation in fulfilling their duty under the Natural Environment and Rural Communities (NERC) Act 2006.

Avoidance, mitigation, compensation and enhancement measures

Example measures are given below. However these are for **illustrative purposes only** and you should follow the advice given by your ecological consultant. Further information can be found in [Natural England's Standing Advice](#)

- avoiding works to areas where water voles are present
- avoiding habitat fragmentation and isolation by ensuring connectivity of habitat
- limiting damage to water vole habitat
- improving habitats after works
- reinstating with improved habitat e.g. restoration of vegetated bank-side corridors to link fragmented populations.
- habitat manipulation – encouraging them to move to a connected habitat
- providing more or higher quality habitat for the water voles, to make up for any lost through development.
- improving water quality
- enhancing bank and vegetation structure
- mink control

Where should I go for further information?

- Strachan, R., Moorhouse, T. & Gelling, M. (2011) Water vole Conservation Handbook (third edition). WildCRu: Oxford
- <https://www.gov.uk/water-voles-protection-surveys-and-licences>
- [Devon Biodiversity Records Centre](#)
- [Devon Wildlife Planning Guidance](#)
- [Biodiversity Planning Toolkit](#)
- Natural England (2008) Water voles – the law in practice: Guidance for planners and developers. Natural England, Peterborough.

Important note

Legislation, survey guidelines, species distribution and best practice mitigation may be subject to change and this note may not necessarily include the latest information. Please seek professional advice.

This Advice Note was produced by DCC's Ecologist with input and advice from the Environment Agency. If you have any comments on this Advice Note or ideas for improvement please email nature@devon.gov.uk